NOAA NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
UNITED STATES DEPARTMENT OF COMMERCE

Contact: Richard H. Elder

FOR IMMEDIATE RELEASE
June 30, 2011

Enhanced National Weather Service Radar to Improve Precipitation, Tornado Detection

The National Weather Service Doppler radar serving Central and Southeast Kansas is now being enhanced with the latest dual polarization technology that will result in better estimation of precipitation amount, size and type in addition to spotting precisely where a damaging tornado has touched down.

Dual polarization radar technology can better detect heavy rainfall in flooding events, improve hail detection in thunderstorms and improve classification of precipitation types (rain, snow, ice). It can also detect the presence of airborne tornado debris, giving a forecaster a high degree of confidence that a damaging tornado is occurring. This helps a forecaster confirm and track the location of a tornado, which is especially helpful at night when tornadoes are difficult to spot with the human eye.

"This is the most significant upgrade to the nation's weather radar network since Doppler radar was first installed in the early 1990s," said Jack Hayes, director of NOAA's National Weather Service. "Dual polarization technology provides significantly more information and clearer pictures of current weather conditions, helping National Weather Service meteorologists provide more accurate and timely forecasts."

Current National Weather Service radars provide forecasters information on precipitation intensity and movement (direction and speed). Dual polarization technology adds new information about the size and shape of an object, which will improve estimates of how much rain is falling, improving flash flood detection and warnings. During winter weather, dual polarization radar can tell the difference between rain, snow and ice, which gives forecasters a much better idea of what to expect at the ground.

"This radar upgrade, which is the first of its kind in the eleven states making up the Central Region of the National Weather Service, and the third such installation nationally, will improve our ability to detect life threatening weather," said Dick Elder, meteorologist-in-charge of the National Weather Service Forecast Office in Wichita.

Installation will begin on July 6th and will last about two weeks. During the upgrade, adjacent National Weather Service radars will provide coverage. Installation of dual polarization technology in all 122 National Weather Service radars is expected to be completed in 2013. Thirty eight other Doppler radars owned by the Air Force and Federal Aviation Administration will also be upgraded.

The National Weather Service is the primary source of weather data, forecasts and warnings for the United States and its territories. It operates the most advanced weather and flood warning and forecast system in the world, helping to protect lives and property and enhance the national economy. Visit us online at weather.gov and on Facebook.

NOAA’s mission is to understand and predict changes in the Earth's environment, from the depths of the ocean to the surface of the sun, and to conserve and manage our coastal and marine resources. Visit us on Facebook.

# # #